

# **Toll Bridge Seismic Retrofit and Regional Measure 1 Programs**

Monthly Progress Report June 2007



Released: July 2007



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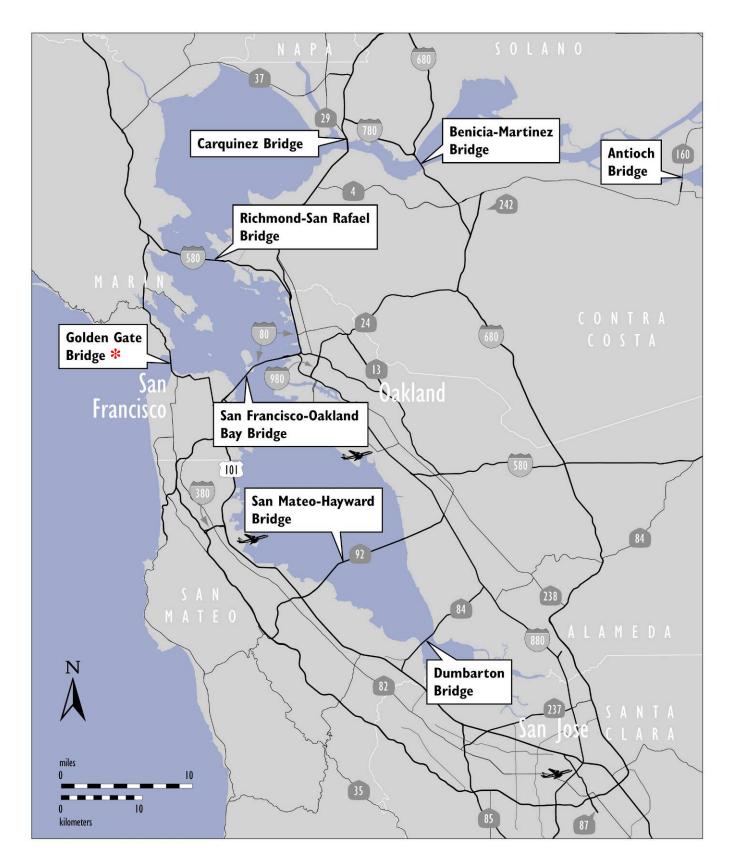




# **TABLE OF CONTENTS**

Introduction	1
Executive Summary	2
Toll Bridge Seismic Retrofit Program—Cost	
Toll Bridge Seismic Retrofit Program—Schedule	
Regional Measure 1 Program—Cost	
Regional Measure 1 Program—Schedule	
Highlights of Project/Program Activities and TBPOC Actions	
Project / Contract Reports	7
San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary	8
▶ Skyway Contract	10
► Self-Anchored Suspension (SAS) E2/T1 Foundations Contract	
▶ Self-Anchored Suspension (SAS) Superstructure Contract	
Yerba Buena Island (YBI)	
Yerba Detour Contract     YBI Transition Structure Contracts	
Oakland Touchdown	
Oakland Touchdown Submarine Cable Relocation Contract	
Oakland Touchdown #1 Contract	
Oakland Touchdown #2 Contract	
Other Major Contracts	
▶ Other Completed Contracts and Related Work	26
San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project	
Richmond-San Rafael Bridge (RSRB) Seismic Retrofit Project	32
Other Completed Seismic Retrofit Projects	34
Other Toll Bridges	35
Project / Contract Reports	37
New Benicia-Martinez Bridge Project Summary	38
New Benicia-Martinez Bridge Contract	
Other Contracts and Related Project Activities	43
New Carquinez Bridge Project	45
Interstate 880/State Route 92 Interchange Reconstruction Project	48
Other Completed Regional Measure 1 (RM1) Projects	50
Appendices	52
Appendix A:San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail .	53
Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail	55
Appendix C: Toll Bridge Seismic Retrofit Program Summary Schedule	
Appendix D: Regional Measure 1 Program Cost Detail	
Appendix E: Regional Measure 1 Program Summary Schedule	
Appendix F: Glossary of Terms	
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# Toll Bridges of the San Francisco Bay Area



# **INTRODUCTION**

In July 2005, Assembly Bill 144, Hancock (AB 144) created the Toll Bridge Project Oversight Committee (TBPOC) to implement a project oversight and project control process for the Benicia-Martinez Bridge project and the state toll bridge seismic retrofit program projects. Comprised of the Caltrans Director, the Bay Area Toll Authority (BATA) Executive Director and the Executive Director of the California Transportation Commission (CTC), the TBPOC's project oversight and control processes include but are not limited to reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the committee) and preparing project reports.

AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as being under the direct oversight of the TBPOC. The Toll Bridge Seismic Retrofit Program includes:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Construction
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
Eastbound Carquinez Bridge Seismic Retrofit	Complete
New Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects, called the Regional Measure 1 (RM1) Toll Bridge Program, under the responsibility of the BATA. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans (CT) will continue to report on their progress as an informational item. The RM1 program includes:

RM1 Projects	Open to Traffic Status
New-Martinez Bridge	Construction
1927 Carquinez Bridge Demolition	Construction
Interstate 880/State Route 92 Interchange Reconstruction	Advertised
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

This report focuses on identifying critical project issues and monitoring project cost and schedule performance for the projects as measured against approved budgets and schedule milestones. This report is intended to fulfill Caltrans' requirement to provide monthly project progress reporting to the TBPOC under Section 30952.05 of the Streets and Highway Code.

# **EXECUTIVE SUMMARY**

# Toll Bridge Seismic Retrofit Program—Cost (\$ Millions)

Project	Work Status	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast*	At- Completion Variance	Cost Status
a	b	С	d	e = c + d	f	g	h = g - e	i
SFOBB East Span Replacement Project								
Capital Outlay Support		959.4	-	959.4	501.6	977.1	17.7	
Capital Outlay Construction								
Skyway	Construction	1,293.0	-	1,293.0	1,158.0	1,293.0	-	•
SAS E2/T1 Foundations	Construction	313.5	-	313.5	224.9	313.5	-	•
SAS Superstructure	Construction	1,753.7	-	1,753.7	270.1	1,767.4	13.7	•
YBI Detour	Design/Const	131.9	202.5	334.4	57.7	334.4	-	•
YBI Transition Structures	Design	299.3	(23.2)	276.1	-	276.1	-	•
Oakland Touchdown (OTD)		283.8	-	283.8	-	302.5	18.7	
* OTD Submarine Cable	Construction	-	-	-	-	9.6*	-	•
* OTD No. 1 (Westbound)	Advertised	-	-	-		226.5	-	•
* OTD No. 2 (Eastbound)	Design	-	-	-	-	62.0	-	•
* OTD Electrical Systems	Design	-	-	-	-	4.4	-	•
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	•
Stormwater Treatment Measures	Construction	15.0	-	15.0	10.6	18.3	3.3	
East Span Completed Projects		90.3	-	90.3	89.3	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	38.8	72.4	-	•
Other Budgeted Capital		35.1	-	35.1	0.6	7.7	(27.4)	
Total SFOBB East Span Replacement Project		5,486.6	179.2	5,665.8	2,351.6	5,674.7	8.9	
SFOBB West Approach Replacement	Construction							•
Capital Outlay Support		120.0	-	120.0	93.5	120.0	-	
Capital Outlay Construction		309.0	-	309.0	241.4	309.0	-	
Total SFOBB West Approach Replacement		429.0	-	429.0	334.9	429.0	-	
Richmond-San Rafael Bridge Retrofit	Complete							•
Capital Outlay Support		134.0	(7.0)	127.0	126.3	127.0	-	
Capital Outlay Construction & Right-of-Way		780.0	(82.0)	698.0	666.0	698.0	-	
Total Richmond-San Rafael Bridge Retrofit		914.0	(89.0)	825.0	792.3	825.0	-	
Program Completed Projects	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.1	705.6	-	
Total Program Completed Projects		925.4	-	925.4	917.5	925.4	-	
Miscellaneous Program Costs		30.0	-	30.0	24.7	30.0	-	
Program Contingency		900.0	(90.2)	809.8	-	800.9	(8.9)	
Total Toll Bridge Seismic Retrofit Program		8,685.0	-	8,685.0	4,421.0	8,685.0	-	

Within Approved Current Schedule and Budget

Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

\*Current contract allotment to install two submarine electrical cables is \$11.5 million. Additional non-program funding to support this allocation beyond the \$9.6 million of available program funds has been made available by the Treasure Island Development Authority.

Notes: Details may not sum to totals due to rounding effects.

Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

# Toll Bridge Seismic Retrofit Program—Schedule

Project	AB 144 / SB 66 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (05/2007)	Project Complete Schedule Forecast (05/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	С	d = b + c	е	f = e – d	g	h
SFOBB East Span Replacement Proje Skyway	ect Apr 07	8	Dec 07	Dec 07	-	•	See page 10.
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	•	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	•	See Note.
YBI Detour	Jul 07	36	Jun 10	Jun 10	-	•	See discussion on pages 18 and 19.
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14	-	•	
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	•	
OTD Submarine Cable	n/a		Jan 08	Jan 08	-	•	See pages 9 and 21.
OTD Westbound	n/a		Jul 09	Oct 09	3		Bids were opened on June 5, 2007 for contract. Target award date is July 11, 2007.
OTD Eastbound	n/a		Nov 14	Nov 14	-	•	See Note.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	•	See Note.
Stormwater Treatment Measures	Mar 08	-	Mar 08	Mar 08	-	•	
Open to Traffic Date: Westbound	Sep 11	12	Sep 12	Sep 12	-	•	See Note.
Open to Traffic Date: Eastbound	Sep 12	12	Sep 13	Sep 13	-	•	See Note.
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Aug 09	-	•	
Richmond-San Rafael Bridge							
Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	•	Seismic retrofit completed July 29, 2005. Formal acceptance of contract October 28, 2005. \$89 million has been transferred to Program Contingency.
Public Access Project	n/a	-	May 07	Sept 07	4	•	See page 32.

Note: Schedules for selected projects and the Open to Traffic dates were extended by 12 months from the AB144/SB66 baseline schedule due to Addenda #5 and #7 on the SAS Superstructure contract.

# Regional Measure 1 Program—Cost (\$ Millions)

Project	Work Status	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast*	At- Completion Variance	Cost Status
a	b	С	d	e = c + d	f	g	h = g - e	I
New Benicia-Martinez Bridge Project	Construction							•
Capital Outlay Support		157.1	24.8	181.8	171.2	189.1	7.3	
Capital Outlay Construction		861.6	143.1	1,004.7	926.5	1,037.6	32.9	
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.3	20.3	-	
Project Reserve		20.8	35.3	56.2	-	27.0	(29.2)	
Total New Benicia-Martinez Bridge Project		1,059.9	203.1	1,263.0	1,110.0	1,274.0	11.0	
Carquinez Bridge Replacement Project	Construction							•
Capital Outlay Support		124.4	(1.1)	123.3	119.9	122.3	(1.0)	
Capital Outlay Construction		381.2	3.3	384.5	369.7	384.5	-	
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-	
Project Reserve		12.1	(2.2)	9.9	-	0.9	(9.0)	
Total Carquinez Bridge Replacement Project		528.2	-	528.2	499.5	518.2	(10.0)	
I-880/SR-92 Interchange Reconstruction	Advertised							•
Capital Outlay Support		28.8	-	28.8	31.7	55.0	26.2	
Capital Outlay Construction		94.8	-	94.8	-	155.0	60.2	
Capital Outlay Right-of-Way		9.9	-	9.9	8.3	15.0	5.1	
Project Reserve		0.3	-	0.3	-	20.0	19.7	
Total I-880/SR-92 Interchange Reconstruction		133.8	+	133.8	40.0	245.0	111.2	
Program Completed Projects	Complete							
Capital Outlay Support		62.0	(4.0)	58.0	57.4	58.9	0.9	
Capital Outlay Construction		324.4	2.5	326.9	308.0	312.9	(14.0)	
Capital Outlay Right-of-Way		1.7	-	1.7	0.5	0.8	(0.9)	
Project Reserve		2.6	1.5	4.1	-	7.1	3.0	
<b>Total Program Completed Projects</b>		390.7	-	390.7	365.9	379.7	(11.0)	
Total Regional Measure 1 Program		2,1126	203.1	2,315.7	2,015.4	2,416.9	101.2	

- Within Approved Current Schedule and Budget
- Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation
- Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

Note: Details may not sum to totals due to rounding effects.

<sup>\*</sup> Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

# Regional Measure 1 Program—Schedule

Project	BATA Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (05/2007)	Project Complete Schedule Forecast (05/2007)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	С	d = b + c	е	f = e - d	g	h
New Benicia-Martinez Bridge Project • New Benicia-Martinez Bridge	Dec 07	-	Oct 07	Oct 07	-	•	
• I-680/I-780 Interchange Replacement	Dec 07	-	Dec 07	Dec 07			Final electrical work to be completed after Bridge Open to Traffic. Structure was substantially completed as of December 1, 2006. See page 44.
Open to Traffic Date	Dec 07	-	Aug 07	Aug 07	-	•	
1927 Carquinez Bridge Demolition Project	Dec 07	-	Dec 07	Dec 07	-	•	
I-880/SR-92 Interchange Reconstruction	Nov 10	-	Nov 10	Jun 11			Bids were opened on June 27, 2007. See page 48.

# Highlights of Project/Program Activities and TBPOC Actions for June 2007

# **Toll Bridge Seismic Retrofit Program**

#### SFOBB East Span Seismic Replacement Project

- On the Yerba Buena Island (YBI) Detour Contract, work is proceeding to construct the replacement of the upper roadway section near the YBI Tunnel. Construction work completed includes the installation of the foundations for the new deck section and site preparation for the construction of the pre-cast deck. Erection of the falsework for the new deck has started. Current plans continue to schedule the roll-in of the roadway to take place over the Labor Day 2007 Weekend Full Bay Bridge Closure.
- On the Submarine Cable Replacement Contract, the electrical cable has been fabricated and was shipped from Italy on June 4, 2007. The cable is expected to be in the Bay Area by early July.
- On the Oakland Touchdown #1 Contract, Caltrans opened four bids for the contract on June 5, 2007. The apparent low bid was \$20 million below the engineer's estimate.

#### **SFOBB West Approach Seismic Retrofit Project**

On the San Francisco-Oakland Bay Bridge (SFOBB) West Approach project, Caltrans is continuing with the final major phase of the project - the reconstruction of the eastbound from 5th Street to 2nd Street. Over the next year, future work includes pile and falsework installations to reconstruct the eastbound structure.

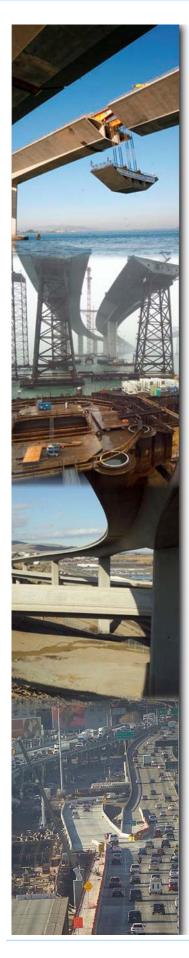
#### **Regional Measure 1 Program**

#### **New Benicia-Martinez Bridge Project**

The new bridge is scheduled to be ready for traffic by late August 2007. BATA and Caltrans are currently planning a bridge opening celebration.

#### I-880/SR-92 Interchange Project

On June 27, 2007, Caltrans opened three bids for the contract. The apparent low bid was significantly over the current cost forecast. Caltrans and BATA are currently evaluating the bids. A budget change will be necessary to award the contract. BATA has been requested to take action on the contract in July.



# **PROJECT / CONTRACT REPORTS**

# Toll Bridge Seismic Retrofit Program

San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

- Skyway Contract
- Self-Anchored Suspension (SAS) E2/T1 Foundations Contract
- Self-Anchored Suspension (SAS) Superstructure Contract
- Yerba Buena Island (YBI)
  - Yerba Buena Island (YBI) Detour Contract
  - Yerba Buena Island (YBI) Transition Structure Contracts
- Oakland Touchdown (OTD)
  - Oakland Touchdown (OTD) Submarine Cable Relocation Contract
  - Oakland Touchdown (OTD) #1 Contract
  - Oakland Touchdown (OTD) #2 Contract
- Other Major Contracts
- Other Contracts and Related Project Work

San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project Richmond-San Rafael Bridge Seismic Retrofit Project Other Completed Seismic Retrofit Projects

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

Project Description: The East Span will be seismically retrofitted through the complete replacement of the existing span. The remaining effort for this project consists of the following contracts: Skyway—construction of two parallel concrete structures, each approximately 1.3 miles in length; Self-Anchored Suspension (SAS) Foundation—construction of SAS marine foundations; SAS Superstructure—construction of a self-anchored 385-meter main span superstructure incorporating a 160-meter fabricated structural steel tower with a main cable and inclined suspenders that will support steel orthotropic decks; Yerba Buena Island (YBI) Detour—design and construction of a temporary double-deck bypass structure that will detour traffic to the existing SFOBB while completing the westerly permanent tie-in structure of the new East Span at Yerba Buena Island; YBI Structures—construction of a new structure connecting the western end of the self-anchored suspension to the Yerba Buena Island viaduct, which will be retrofitted; Oakland Touchdown—at the Oakland end of the East Span, construction of two parallel, cast-in-place post-tensioned concrete viaducts, which join the skyway to the at-grade Oakland approach fill; and Existing Bridge Demolition—demolition of the existing 1936 SFOBB East Span structure after the construction and placement of traffic onto the new East Span.

SFOBB East Span Replacement Cost Summary (\$ Millions)

 Contract	AB 144/ SB 66 Budget	Approved Changes	Current Approved Budget	Cost To Date (05/2007)	1st Quarter 2007 Forecast	Variance
а	b	С	d = b + c	e	f	g = f - d
Capital Outlay Support	959.4	-	959.4	501.6	977.1	17.7
Capital Outlay				-	-	
Skyway	1,293.0	-	1,293.0	1,158.0	1,293.0	-
SAS E2/T1 Foundations	313.5	-	313.5	224.9	313.5	-
SAS Superstructure	1,753.7	-	1,753.7	270.1	1,767.4	13.7
YBI Detour	131.9	202.5	334.4	57.7	334.4	-
YBI Transition Structures	299.3	(23.2)	276.1	-	276.1	-
Oakland Touchdown	283.8	-	283.8	-	302.5	18.7
♦ OTD Submarine Cable				-	9.6	
♦ OTD Westbound				-	226.5	
♦ OTD Eastbound				-	62.0	
◆ OTD Electrical Systems				-	4.4	
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	10.6	18.3	3.3
East Span Completed Projects	90.3	-	90.3	89.3	90.3	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Other Budgeted Capital	35.1	-	35.1	0.6	7.7	(27.4)
TOTAL	5,486.6	179.2	5,665.8	2,351.6	5,674.7	8.9

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
Skyway	April 2007	8	December 2007	December 2007	-
YBI Detour*	July 2007	36	June 2010	June 2010	-
Stormwater Treatment Measures	March 2008	-	March 2008	March 2008	-
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
Open to Traffic: Westbound	September 2011	12	September 2012	September 2012	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Open to Traffic: Eastbound	September 2012	12	September 2013	September 2013	-
Oakland Touchdown (OTD)	November 2013	12	December 2014	December 2014	-
* OTD Submarine Cable	n/a		January 2008	January 2008	-
* OTD No. 1 (Westbound)	n/a		July 2009	October 2009	3
* OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-
YBI Transition Structure*	November 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-

<sup>\*</sup>Contract schedules being further assessed due to changes in SAS schedule.

**Project Status:** Construction is currently ongoing for the Skyway, YBI Detour, SAS E2/T1 Foundations, Stormwater Treatment Measures and the OTD Submarine Cable contracts. Contracts in design include the OTD #1 (westbound), OTD #2 (eastbound), the YBI Transition Structure (YBITS) Contract #1, YBITS Contract #2 and Existing Bridge Demolition contract. Design of each contract is proceeding per its schedule requirements. Bid opening for the Oakland Touchdown (OTD) #1 contract was on June 5. Four bids were submitted with the apparent lowest bidder being MCM Construction Inc. Target award date for Oakland Touchdown is July 11, 2007.

**Project Issues:** All projects except Demolition have a Risk Response Team and a Risk Register incorporating quantitative risk analyses. A preliminary risk register has also been developed for Capital Outlay Support (COS) costs, as well as a program-level risk register that captures risks common to all project. The development of a quantitative COS risk analysis is in progress. The Risk Response Teams have focused attention on developing and executing risk response actions for their most significant risks. Many of the actions have been effective, as evidenced by a reduction of risk impacts on the Skyway and E2/T1 contracts from the previous quarter. The effort to develop and execute risk response actions to mitigate the cost and schedule impacts posed by risk issues continues to be a high priority.

**Recent TBPOC Actions:** See the following contract detail pages for specific TBPOC actions on East Span contracts.

#### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### SKYWAY CONTRACT

Contract Description: The Skyway contract constructs two parallel pre-cast concrete approach spans from Oakland to the self-anchored suspension span near Yerba Buena Island.

**Skyway Cost Summary (\$ Millions)** 

Contract a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007)	Cost Forecast (05/2007) f	Variance g = f - d
East Span - Skyway						
Capital Outlay Support	197.0	-	197.0	163.4	197.0	-
Capital Outlay Construction	1,293.0	-	1,293.0	1,158.0	1,293.0	-
TOTAL	1,490.0	-	1,490.0	1,321.4	1,490.0	-

Note: Details may not sum to totals due to rounding effects.

**Skyway Schedule Summary** 

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
East Span - Skyway	April 2007	8	December 2007	December 2007	-

Contract Status: The Skyway contract is currently in construction and is 96% complete as of May 21, 2007. The foundation work is complete including the installation of the fenders around six of the pier footings. The eastbound and westbound structures are 100% complete with the erection of all segments. Remaining work includes final post-tensioning of the segments to tie the segments together, installation of the cantilevered bike path and service platforms, electrical work, and other punchlist work.

#### **Contract Issues:**

Issue	Mitigating Action				
KFM issued 15 NOPC's on behalf of USI for welding issues related to the fabrication of the Steel Orthotropic Box Girders (SOBG).	USI completed the fabrication of the SOBG. All NOPC's filed were heard by the Dispute Review Board. NOPC's 20, 23, 25, and 27 are pending DRB determination. Caltrans is evaluating USI's cost claims.				

# **Contract Photographs**



Belvedere Bike Path Panel



Electrical Cabinets Installed on the Service Platforms



Skyway - Looking East from the YBI



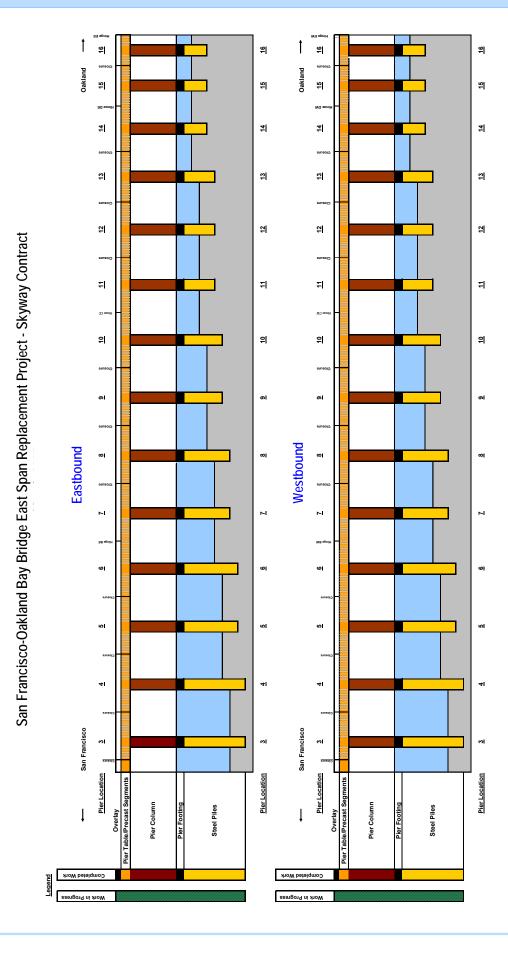
Skyway - Looking East



Modular Joints used on the Skyway



Hinge D - East Bound



12

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

# ▶ Self-Anchored Suspension (SAS) E2/T1 Foundations Contract

**Contract Description:** The Self-Anchored Suspension (SAS) E2/T1 Foundations contract constructs the main tower foundation at T1 and the adjacent east foundation at E2. (See diagram pg. 14)

SAS E2/T1 Foundations Cost Summary (\$ Millions)

<u>Contract</u>	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance g = f - d
East Span - SAS E2 / T1 Foundations						
Capital Outlay Support	52.5	(11.0)	41.5	21.7	41.5	-
Capital Outlay Construction	313.5	-	313.5	224.9	313.5	-
TOTAL	366.0	(11.0)	355.0	246.6	355.0	-

Note: Details may not sum to totals due to rounding effects.

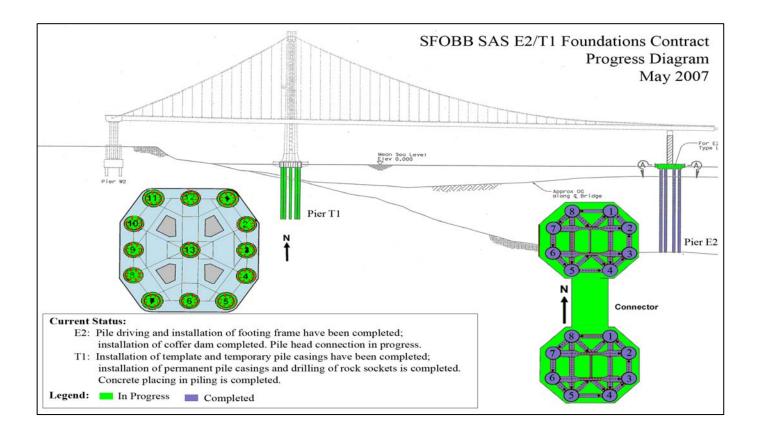
SAS E2/T1 Foundations Schedule Summary

	AB 144/SB 66		Contract Complete Current	Contract	
Contract	Contract Completion Baseline (07/2005)	Approved Changes (Months)	Approved Schedule (05/2007)	Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
East Span - SAS E2 / T1 Foundations	June 2008	(3)	March 2008	March 2008	-

Contract Status: The contract is 81% complete as of May 21, 2007. On the SAS Marine Foundations Contract, all 13 rock sockets that tie the SAS tower foundation (T1) to bedrock have been installed. The T1 footing box was set into place on March 17, 2007. The T1 bottom slab concrete has been placed. Slot cutting for T1 pile head connection welding is in progress. At the E2 Foundation, all piles have been driven into place. Welding of pile head connections on the east side of E2 is complete. Welding of pile head connections on the west side of E2 is nearing completion. Connector girder welding is complete. First lift of concrete at E2E has been placed.

Contract Issues: None.

# **Project Photographs**









Removal of Bottom Slab Falsework at T1

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ▶ SELF-ANCHORED SUSPENSION (SAS) SUPERSTRUCTURE CONTRACT

**Contract Description:** The Self-Anchored Suspension (SAS) Superstructure contract constructs a signature tower span between the Skyway and the Yerba Buena Island transition structure. Work on the SAS bridge has been split between three contracts—the SAS Superstructure (under construction), the SAS E2/T1 Foundation (under construction), and the SAS W2 Foundation (completed).

**SAS Superstructure Cost Summary (\$ Millions)** 

Contract a	AB 144 / SB 66 Budget (07/2005) B	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance g = f - d
East Span - SAS Superstructure						
Capital Outlay Support	214.6	-	214.6	38.6	214.6	-
Capital Outlay Construction	1,753.7	-	1,753.7	270.1	1,767.4	13.7
TOTAL	1,968.3	-	1,968.3	308.7	1,982.0	13.7

Note: Details may not sum to totals due to rounding effects.

SAS Superstructure Schedule Summary

	AB 144/SB 66		Contract Complete Current	Contract	
Contract	Contract Completion Baseline (07/2005)	Approved Changes (Months)	Approved Schedule (05/2007)	Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
East Span - SAS Superstructure	March 2012	12	March 2013	March 2013	-

Contract Status: The contract is 19% complete as of May 21, 2007. The contractor, American Bridge Fluor Enterprises, Inc., a Joint Venture (ABF), continues to mobilize staff to the field office at Pier 7. ABF and their subcontractors have been preparing and submitting requests for information and submittals for Caltrans review and response, including a schedule update. The baseline schedule submitted in March 2007 by ABF was accepted by Caltrans. ABF has completed the design of the crane barge to be used to lift the heavy tower and deck sections. Barge fabrication has started in Oregon. ABF completed the falsework pads for the W2 Capbeam on the Yerba Buena Island

Zhenhua Port Machinery Company (ZPMC) of Shanghai, China is currently setting up their facilities to fabricate the steel tower and deck sections. ZPMC is preparing initial test mock-ups of the sections and plans to begin production fabrication later in 2007.

The forecasted \$13.7 million increase in construction costs on the SAS contract, from the approved budget, reflects actions taken to encourage additional bidders on the contract.

# **Contract Issues:**

Issue	Mitigating Action
Caltrans has identified the need for added resources to monitor work at the ZPMC steel fabrication facilities in China.	Caltrans and BATA are working together to set up facilities and to organize resources that will ensure an effective Owner's presence in the steel fabrication shops.
Potential for cost increases during construction due to steel plate conflicts. Applies to structural steel, including the towers and box girders.	Establish Working Drawing Campus with Contractor to facilitate discussion about conflicts and meet regularly. Caltrans has constructed models and identified conflicts, for which CCOs are to be prepared.

**Recent TBPOC Actions:** None

# **Contract Photographs**



Prep Work at W2 for Falsework



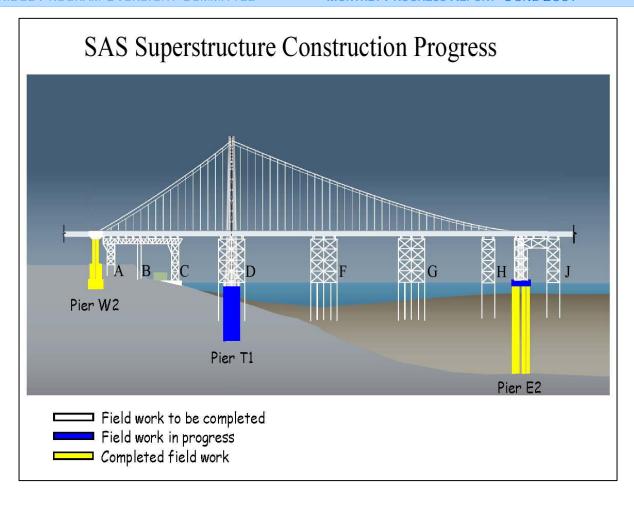
W2 Falsework Material Delivered to the Site

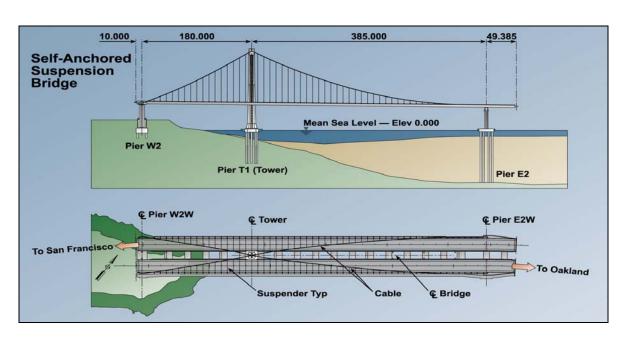


Setting up the Site for W2 Falsework



Steel Falsework for W2





# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

# ► YERBA BUENA ISLAND (YBI)

#### YBI DETOUR CONTRACT

Contract Description: The YBI Detour constructs a temporary detour from the YBI tunnel to the existing east span of the Bay Bridge. This detour maintains traffic on the existing bridge while the YBI Transition Structure Contract completes the tie-in from the SAS to the existing tunnel.

**YBI Detour Cost Summary (\$ Millions)** 

Contract a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance g = f - d
YBI Detour						
Capital Outlay Support	29.5	10.0	39.5	23.3	39.5	-
Capital Outlay Construction	131.9	202.5	334.4	57.7	334.4	-
TOTAL	161.4	212.5	373.9	81.0	373.9	-

Note: Details may not sum to totals due to rounding effects.

#### **YBI Detour Schedule Summary**

		AB 144/SB 66	A	Contract Complete Current	Contract Complete	Cabadala
Contrac	• I	Contract Completion Baseline (07/2005)	Approved Changes (Months)	Approved Schedule (05/2007)	Schedule Forecast (05/2007)	Schedule Variance (Months)
			, , ,	<b>(</b> , )	(	(IVIOTILIS)
YBI Detour *		July 2007	36	Jun 2010	June 2010	-

<sup>\*</sup> Contract schedule under assessment. See Contract Issues below.

Contract Status: The YBI Detour Contract was awarded in early 2004 to construct a temporary detour structure providing for, at that time, a new bridge opening in 2006. Due to the re-advertisement of the SAS superstructure contract in 2005, the bridge opening was rescheduled to 2013, which necessitated a temporary suspension of the YBI Detour contract and design changes. The required suspension of work and design revisions has resulted in increased cost for the YBI Detour contract.

In 2006, the TBPOC approved a plan to pace work on the project, to have Caltrans assume design responsibility over the east and west tie-ins, and to make changes to the detour structures to allow it to stand in place alone for a longer duration than originally intended. The YBI Detour contract is now forecast to be completed in 2010 in time for the revised opening date of the new bridge.

In addition to the revised contract completion date, the TBPOC approved on February 15, 2007 to advance foundation and retrofit work from the Yerba Buena Island Transition Structures (YBITS) contract to the YBI Detour contract. Advancing the work will reduce overall project schedule risk by taking work off the critical path for the East Span project while making more effective use of the extended YBI Detour contract duration, and will enable potential acceleration of the SAS construction pending negotiation with American Bridge.

Advancing the transition structure work, completing the tie-in work under Caltrans' design, and pacing of the remaining YBI Detour work will result in an estimated \$180 million net increase in the project costs from the approved budget. The increase will be covered by the existing program contingency and will not increase the AB144 program budget.

Prior to the suspension, foundations for the temporary detour were nearly completed. Fabrication of the temporary viaduct in Korea is progressing. The contractor completed the foundation and column at pier W3 of YBITS and has started work on the foundation of W4L. Work has also started on retrofitting of the upper deck approach to the Yerba Buena Island Tunnel. The upper deck approach retrofit will require a weekend long closure of the Bay Bridge to roll in a replacement upper roadway. Currently, the closure is scheduled for Labor Day weekend 2007. The contractor has completed the removal of the north overhang of the existing bridge and completed the construction of a retaining wall for the WTI Phase 1 staging area. Installation of the CIDH piles for the WTI retrofit work is complete. Erection of the falsework for the superstructure of the WTI retrofit is in progress.

Contract Issues: None.

**Recent TBPOC Actions:** In May 2007, the TBPOC approved a not-to-exceed amount of \$8 Million for CCO 60 "Construction of the Viaduct Bent Cap" and a not-to-exceed amount of \$10 Million for CCO 61S1 "West Tie-in Phase 1 "Substructure and North Overhang Demolition". See contract status above.

# **Contract Photographs**



WTI Phase 1 Falsework 2



WTI Phase 1 Falsework 3



WTI Phase 1 Falsework 4



WTI Phase 1 Prep Work

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► YERBA BUENA ISLAND (YBI)

#### • YBI TRANSITION STRUCTURE CONTRACTS

Contract Description: The YBI Transition Structure contracts will construct the mainline YBI transition structures (YBITS) that will connect the SAS portion of the new bridge to the existing YBI tunnel. YBITS #1 will construct the mainline approach structure from the new bridge to the YBI tunnel. YBITS #2 will demolish the YBI Detour temporary structure, complete the new eastbound on-ramp, reconstruct local affected facilities at YBI, and complete the bike path from the SAS to YBI (except for a section of the path that conflicts with existing column E1). That section of the path is contemplated to be completed in the demolition contract. A YBI Landscaping Contract will restore slopes and vegetation in areas affected by YBI construction.

**YBI Transition Structure Cost Summary (\$ Millions)** 

Contract a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance g = f - d
YBI Transition Structure						
Capital Outlay Support	78.7	-	78.7	14.0	78.7	-
Capital Outlay Construction	299.3	(23.2)	276.1	-	276.1	-
TOTAL	378.0	(23.2)	354.8	14.0	354.8	-

Note: Details may not sum to totals due to rounding effects.

**YBI Transition Structure Schedule Summary** 

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
YBI Transition Structure	November 2013	12	November 2014	November 2014	-

**Contract Status:** In February 2007, the TBPOC approved a plan to accelerate portions of the YBITS work by adding it to the YBI Detour Contract. The new forecast for the YBITS contract excluding the advance work is \$276.1 million which is a net reduction of \$23.2 million from the AB 144/SB 66 budget. Caltrans is preparing the remaining portion of the YBITS contract for advertisement in 2008. See the YBI Detour Contract Status on page 18 for more information.

Contract Issues: None.

**Recent TBPOC Actions:** In February 2007, the TBPOC approved a plan to accelerate YBITS work on the YBI Detour contract.

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### **▶ OAKLAND TOUCHDOWN**

#### • OAKLAND Touchdown Submarine Cable Relocation Contract

**Contract Description:** The OTD Submarine Cable Contract will replace the existing submarine electrical cable from Oakland to Treasure Island, and will be completed ahead of OTD Contract No. 1 to avoid possible construction conflicts.

Oakland Touchdown Submarine Cable Relocation Cost Summary (\$ Millions)

<u>Contract</u> a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance g = f - d
OTD Submarine Cable						
Capital Outlay Support	-	-	-	0.5	3.0	-
Capital Outlay Construction	-	-	-	-	9.6	-
TOTAL	-	-	-	0.5	12.6	-

Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.

Oakland Touchdown Submarine Cable Relocation Schedule Summary

Caltialia i Cacillacti	II Oubillalillo Oub	io i toloodiit	on concadio cai	illiai y	
			Contract	Contract	
	AB 144/SB 66		Complete Current	Complete	
	Contract Completion	Approved	Approved	Schedule	Schedule
	Baseline	Changes	Schedule	Forecast	Variance
Contract	(07/2005)	(Months)	(05/2007)	(05/2007)	(Months)
OTD Submarine Cable	-	-	January 2008	January 2008	-

#### **Contract Status:**

Current contract allotment to install two submarine electrical cables is \$11.5 million. Additional non-program funding to support this allocation beyond the \$9.6 million of available programs funds has been made available by the Treasure Island Development Authority. The contract is 31% complete as of May 21, 2007. The cable was shipped from Italy on June 4, 2007.

#### **Contract Issues:**

Issue	Mitigating Action				
If the contractor cannot procure and install the cables within the specified timeframes, the cable relocation project could potentially delay work on the OTD #1 contract.	The cable has been ordered by the Contractor, and work-around specification language is included in the OTD #1 contract in case the cables are delayed.				

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### **▶ OAKLAND TOUCHDOWN**

#### OAKLAND Touchdown #1 Contract

**Contract Description:** The Oakland Touchdown #1 Contract includes construction of all marine foundations, and land foundations (except for the eastbound abutment), westbound bridge section, and one frame of the eastbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. This contract also constructs the electrical substation and the eastbound detour roadway. Traffic will not be placed on the detour until later during OTD #2.

Oakland Touchdown #1 Cost Summary (\$ Millions)

Contract a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance g = f - d
Oakland Touchdown #1						
Capital Outlay Support	-	-	-	3.8	49.9	-
Capital Outlay Construction	-	-	-	-	226.5	-
TOTAL	-	-	-	3.8	276.4	-

Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.

Oakland Touchdown #1 Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
Oakland Touchdown #1	-	-	July 2009	October 2009	3

**Contract Status:** Design work is complete. Plans, Specifications, and Engineer's Estimate (PS&E) were submitted to the Office Engineer on September 1, 2006. On Tuesday, June 5, 2007, Caltrans opened four proposals for the OTD #1 contract. MCM Construction Inc. submitted the apparent low bid for the OTD #1 contract. The contract was advertised with an A+B specification that required contractors to take into account contract duration as part of their bid. The A+B specification may accelerate the forecast completion of the contract earlier than the current October 2009 date. (Note that the A+B requirement only applies for the milestone to complete the westbound bridge section of the contract).

#### **Contract Issues:**

901111401 1004001	
Issue	Mitigating Action
Delays and cost increases due to conflicts from delays to the relocation of the submarine cable.	Caltrans has incorporated work-around specification language in the OTD 1 contract to mitigate delays due to the cable and has extended the forecast completion date of the contract to October 2009. The revised completion date will not impact the overall completion date of the project.

Recent TBPOC Actions: In April 2007, TPBOC approved clarifying addenda for the contract.

#### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### **▶ OAKLAND TOUCHDOWN**

#### OAKLAND Touchdown #2 CONTRACTS

**Contract Description:** The Oakland Touchdown #2 Contract includes construction of the remaining eastbound bridge section and roadway approach for the section connecting the new Skyway portion to the roadway west of the Oakland Toll Plaza. This work would occur once the westbound traffic is shifted onto the new SAS.

Oakland Touchdown #2 Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	Variance
a	b	С	d = b + c	е	f	g = f - d
Capital Outlay Support	-	-	-	0.3	17.2	-
Capital Outlay Construction						
Oakland Touchdown #2	-	-	-	-	62.0	-
Oakland Touchdown Electrical Systems	-	-	-	-	4.4	-
TOTAL	-	- 	-	0.3	83.6	-

Note: Details may not sum to totals due to rounding effects. The allocation of AB144/SB 66 budgets is proceeding. Budget amount is TBD. Overall OTD budgets and forecasts are shown on page 2.

Oakland Touchdown #2 Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
Oakland Touchdown #2	-	-	November 2014	November 2014	-

**Contract Status:** Design work for the structures portion of OTD Contract No. 2 is substantially complete. The contract will be advertised in 2010 in time for opening the SAS in the eastbound direction. Determination of contract scope for the Oakland Touchdown Electrical Systems is underway. Caltrans is also considering the option of incorporating this work into the Oakland Touchdown #2 contract.

Contract Issues: None.

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### **▶ OTHER MAJOR CONTRACTS**

**Contract Description:** Other Major Contracts include the Stormwater Treatment Measures contract, which will implement best practices for storm water runoff treatment at the SFOBB toll plaza and the Existing Bridge Demolition contract, which will include the complete removal of the existing 1936 east span following the opening of the new bridge.

Other Major Contracts Cost Summary (\$ Millions)

Contract A	AB 144 / SB 66 Budget (07/2005)	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance q = f - d
Capital Outlay Support	238.8	2.0	240.8	45.6	258.5	17.7
Capital Outlay Construction						-
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	10.6	18.3	3.3
Total Capital Outlay Construction	254.2	-	254.2	10.6	240.3	(13.9)
TOTAL	493.0	2.0	495.0	56.2	498.8	3.8

Note: Details may not sum to totals due to rounding effects.

Other Major Contracts Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)	% Design Comp.
Existing Bridge Demolition	September 2014	12	September 2015	September 2015	-	10
Stormwater Treatment Measures	March 2008	-	March 2008	March 2008	-	N/A

#### **Contract Status:**

**Stormwater Treatment Measures:** The contract is 73% complete as of May 21, 2007. Some delays in the work have been experienced due to nesting birds, buried man-made objects, unidentified utilities, and discovery of unsuitable materials.

**Recent TBPOC Actions:** In June 2007, the TBPOC approved a budget increase of \$3.3 million and a schedule change for the Stormwater Treatment Measure contract due to delays from nesting birds, unanticipated buried objects, the Maze collapse, and other issues.

**Bridge Demolition:** Design work has been temporarily suspended to assign engineering resources to higher priority tasks, and will resume at a later time. The contract schedule completion date has been extended by 12 months due to a 12-month SAS contract extension. The \$17.2 million decrease in construction costs for the Existing Bridge Demolition contract is due to a re-evaluation of cost escalation rates for the contract.

Contract Issues: None.





Area 2, Bio-Retention Basin

Area 2, MSE-Wall



Pump Station -3B, Retaining Wall Sub-Grade

# San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### **▶ OTHER COMPLETED CONTRACTS AND RELATED WORK**

**Summary Description:** Substantial work has already been performed on the SFOBB East Span Replacement project to facilitate construction of the mainline construction contracts.

Other Contracts and Related Work Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	Variance
a	b	С	d = b + c	Е	f	g = f - d
Capital Outlay Support	227.0	(1.0)	226.0	209.0	226.0	
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Capital Outlay Construction						-
SAS W2 Foundations	26.4	-	26.4	25.8	26.4	-
YBI/SAS Archaeology	1.1	-	1.1	1.1	1.1	-
YBI - USCG Road Relocation	3.0	-	3.0	2.8	3.0	-
YBI - Substation and Viaduct	11.6	-	11.6	11.3	11.6	-
Oakland Geofill	8.2	-	8.2	8.2	8.2	-
Pile Installation Demonstration Project	9.2	-	9.2	9.2	9.2	-
Existing East Span Retrofit	30.8	-	30.8	30.8	30.8	-
Total Capital Outlay Construction	90.3	-	90.3	89.3	90.3	-
TOTAL	389.7	(1.0)	388.7	337.1	388.7	

Note: Details may not sum to totals due to rounding effects.

**Other Contracts and Related Work Schedule Summary** 

Project	Actual Project Completion Date
Existing East Span Retrofit	March 1998
Interim Retrofit	July 2000
Pile Installation Demolition Project	December 2000
YBI / SAS Archaeology	January 2003
Oakland Geofill	April 2003
YBI – USCG Road Relocation	June 2004
SAS W2 Foundations	October 2004
YBI Substation and Viaduct	May 2005

**Summary Status:** Construction has been completed on the above-listed contracts. Caltrans continues to work with various environmental agencies to conduct compliance inspections and monitor and mitigate any environmental impacts from the project.

Contract Issues: None.

# San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

**Project Description:** The SFOBB West Approach Replacement Project will replace the entire west approach structure from 5<sup>th</sup> Street to the west anchorage of the existing west spans of the SFOBB while maintaining existing traffic lanes for the weekday commute.

SFOBB West Approach Replacement Cost Summary (\$ Millions)

Project a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007) f	Variance q = f - d
West Approach						
Capital Outlay Support	120.0	-	120.0	93.5	120.0	-
Capital Outlay Construction	309.0	-	309.0	241.4	309.0	-
TOTAL	429.0	-	429.0	334.9	429.0	-

Note: Details may not sum to totals due to rounding effects.

SFOBB West Approach Replacement Schedule Summary

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	AB 144/SB 66		Project Complete			
	Project Completion Baseline	Approved Changes	Current Approved Schedule	Contract Complete Schedule Forecast	Schedule Variance	
Project	(07/2005)	(Months)	(05/2007)	(0\5/2007)	(Months)	
West Approach	August 2009	-	August 2009	August 2009	-	

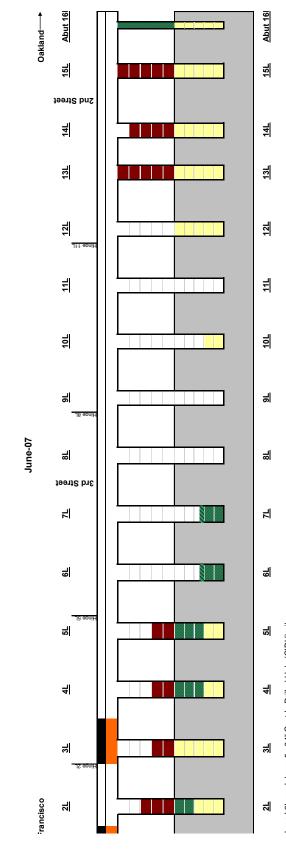
**Project Status:** Construction is 80% complete as of May 20, 2007. Seismic retrofit construction is continuing throughout the project. The rebuilding of the new EB 80 structure is in progress with pile and column installation and will continue throughout the summer. Falsework for the Harrison Off-ramp is also in the process of being installed along with the Frame 7U temporary supports. In order to ensure that the community is aware of the ongoing pile and upcoming falsework operations, an extensive public outreach effort continues and will be necessary until the end of the year for the Stillman Street area.

#### **Project Issues:**

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Issue	Mitigating Action			
Pile investigation and testing for the identification of pile anomalies must be completed in a timely manner so as to avoid construction impact.	Work on piles has progressed. Caltrans Construction coordinates closely with Structure Design and METS daily on pile investigation and testing issues, and proactively monitors the efforts. Tracking of the testing effort is done for each individual pile. Team participation in Risk Management meetings has proven to be valuable in addressing this issue.			
	In order to mitigate risk, and minimize delay caused by the pile anomalies, CCO #			
	71.1, - Delay Mitigation for Wet Piles 1L – 8L is in process.			

Contract Issues: None.

SFOBB West Approach Retrofit Progress Diagram Mainline Eastbound 80 Rebuilding



L and 2L each have 5 - 84" Cast in Drilled Hole (CIDH) piles.

1. through 5L each have 5 - 90" Cast in Drilled Hole (CIDH) piles.

1. through 8L each have 4 - 90" Cast in Drilled Hole (CIDH) piles.

1. through 15L each have 3 - 72" Cast in Drilled Hole (CIDH) piles.

1. through 15L each have 3 - 72" Cast in Drilled Hole (CIDH) piles.

1. through 15L each have 3 - 72" Cast in Drilled Hole (CIDH) piles.

2. In through 3L = 90",

3. Each of through 8L = 75",

3. Each of through 8L = 75",

3. Each of through 8L = 75",

4L = 70",

4L = 70",

4L = 70",

4L = 40",

4L = 40

ng on-ramp reconstruction



Overhead View of the West Approach Project

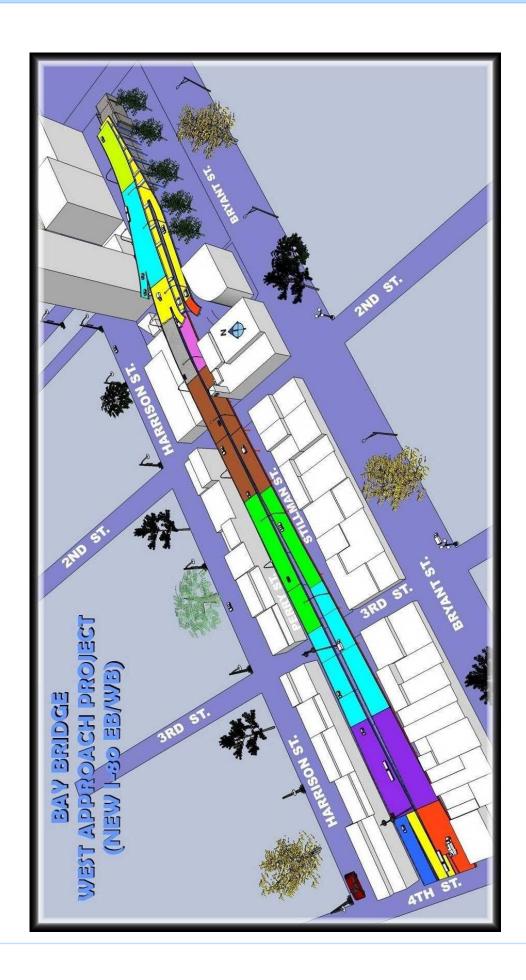


Traffic Flow Diagram of the West Approach



West Approach, Looking @ Frame 8U-South





#### Toll Bridge Seismic Retrofit Program

#### Richmond-San Rafael Bridge (RSRB) Seismic Retrofit Project

**Project Description:** The Richmond-San Rafael (RSR) Bridge Seismic Retrofit Project strengthened the existing bridge to withstand the effects of a large seismic event. As part of the retrofit work, Caltrans performed work to strengthen the bridge foundations, replace the existing west trestle and the main channel fenders and complete the joint rehabilitation of the bridge deck. (The RM1 work is reported in the RM1 section of the report.)

#### **RSRB Seismic Retrofit Cost Summary (\$ Millions)**

Project a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007)	Cost Forecast (05/2007)	Variance g = f - d
RSRB Seismic Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.3	127.0	-
Capital Outlay Construction & Right-of-Way	780.0	(82.0)	698.0	666.0	698.0	-
TOTAL	914.0	(89.0)	825.0	792.3	825.0	-

Note: Details may not sum to totals due to rounding effects.

#### **RSRB Seismic Retrofit Schedule Summary**

Project	AB 144/SB 66 Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
RSRB Seismic Retrofit	August 2005	-	August 2005	October 2005	2
RSRB Public Access Lot	NA	-	May 2007	September 2007	4

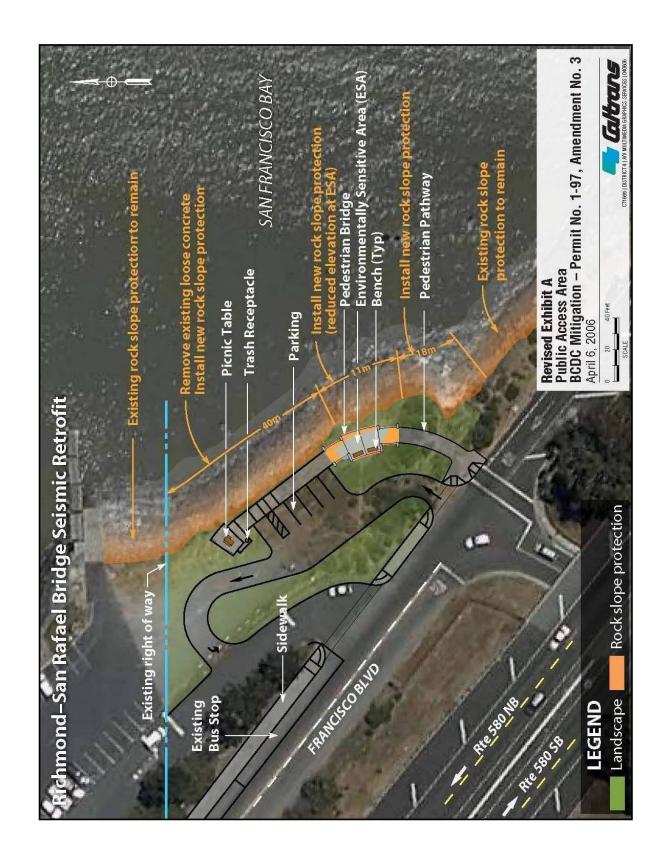
**Project Status:** The retrofit construction contract was completed and accepted on October 28, 2005. Project savings in the amount of \$89 million was transferred to the program contingency in October 2006.

The May 2007 completion date for the Richmond-San Rafael Public Access Project has been revised to September 2007. This adjustment of approximately 4 months is due in part to the inability of the contractor to access the site due to tidal fluctuations, delays associated with pile driving in bay mud, and time extensions necessary to complete utility relocations by others. It should be noted that in spite of these minor setbacks the contractor has continued to make progress and to move forward towards a completion date that will allow the public to experience and enjoy this important part of the San Francisco Bay shoreline.

Contract Issues: None.

Recent TBPOC Actions: None.

<sup>\*</sup> The seismic retrofit contract included work to rehabilitate the bridge deck joints. Although the deck joint work was funded from RM1 toll funds, the work is also eligible for Toll Bridge Seismic Retrofit Program funding. In July 2005, BATA rescinded \$16.9 million in RM1 funds for the deck joint work to make additional RM1 funds available for the New Benicia-Martinez Bridge Project. An equivalent amount of seismic funds will be used on the deck joint work, which is included in the budget above.



#### Toll Bridge Seismic Retrofit Program

#### Other Completed Seismic Retrofit Projects

**Summary Description:** Caltrans has already completed the seismic retrofits of the West Spans of the SFOBB, the existing 1958 Carquinez Bridge, the existing Benicia-Martinez Bridge, the San Mateo-Hayward Bridge, and two former toll bridges in Southern California.

Other Completed Seismic Retrofit Projects Cost Summary (\$ Millions)

Project a	AB 144 / SB 66 Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007)	Cost Forecast (05/2007)	Variance g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	307.9	-	307.9	301.1	307.9	-
Carquinez Bridge Retrofit Project	114.2	-	114.2	114.2	114.2	-
Benicia-Martinez Bridge Retrofit Project	177.8	-	177.8	177.8	177.8	-
San Mateo-Hayward Bridge Retrofit	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit Project	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit	103.5	-	103.5	102.6	103.5	-
TOTAL	925.4	-	925.4	917.5	925.4	-

Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined.

Other Completed Seismic Retrofit Projects Schedule Summary

Project	Actual Project Completion Date
Vincent Thomas Bridge Retrofit	May 2000
San Mateo-Hayward Bridge Retrofit	June 2000
Carquinez Bridge Retrofit	January 2002
San Diego-Coronado Bridge Retrofit	June 2002
Benicia-Martinez Bridge Retrofit	August 2002
SFOBB West Span Seismic Retrofit	June 2004

**Summary Status:** Construction has been completed on the above-listed projects. The Estimate at Completion amounts shown above includes allowances for minor project closeout costs.

Contract Issues: None.

Recent TBPOC Actions: None.

## Toll Bridge Seismic Retrofit Program

#### **Other Toll Bridges**

#### **Dumbarton and Antioch Bridges**

State Route 84 crosses the southern region of San Francisco Bay between the cities of Newark to the east and East Palo Alto to the west. The Route consists of three lanes in each direction and an eight-foot bicycle/pedestrian lane. The AADT of the Route is near 70,000. The bridge is over 2 km in length and is positioned in an approximately normal geometry between two seismic faults which the USGS has reported to pose most of the significant seismic threat to the San Francisco Bay Area: the San Andreas Fault, some 15 km to the west of the bridge; and the Hayward Fault, some 13 km to the east of the bridge.

State Route 160 crosses the San Joaquin River between the city of Antioch and Sherman Island (leading to Rio Vista) via the Antioch Bridge. The Bridge carries a single lane of traffic in each direction. The AADT for the Route is slightly over 10,000 vehicles per day. The bridge is threatened by the Bird's Landing Seismic Zone, Cost Range/Sierra Nevada Boundary Zone, and the San Andreas Fault.

#### **Cost and Schedule**

A preliminary cost estimate, schedule, and an initial risk analysis have been developed to complete a comprehensive seismic analysis for each bridge. The preliminary estimate and schedule were developed as a baseline assuming a complete geotechnical and geophysical investigation is required at each bridge.

#### **Current Progress**

These bridges are currently being evaluated for seismic safety and post-earthquake performance. Work is underway in three specific areas: seismology, geology and geotechnical engineering, and bridge structural engineering.

In June 2006, BATA approved \$17.8 million in funding to proceed with the comprehensive seismic analysis of the bridges. By September 2006, BATA entered into contract with a geotechnical and geophysical consultant to evaluate the bridges.

Work in the area of seismology is defining the seismic ground motions used for design. Recommended Safety Evaluation (SE) level motions have been developed for both bridges and are currently under review by and external and independent Seismic Safety Peer Review Panel (SSPRP). SE motions represent future large earthquakes. Work in this area to be completed in the near future includes finalizing the SE motions, developing lower level Functional Evaluation (FE) motions, and multiple earthquake time-histories that can be used in the checking phase of the projects. Draft reports have been released. The SE motions were reviewed by the Toll Bridge Seismic Safety Pier Review Panel on June 14, 2007.

Work in the area of geology and geotechnical engineering includes field drilling and studying of soil samples to identify soil types, locations, and engineering properties. This work supports work in defining how the soil at the bridge sites move during earthquakes and how the rigidly the bridge's foundations are held in the soil. The drilling operations are complete at both bridge sites; information is being shared with the seismologic team and the bridge structure team. Draft reports have been released.

Work in the area of bridge structural engineering is underway for both bridges. The structures team to date has been collecting and evaluating structural information on the bridges, reducing that information for use in computer models of the bridges, and initiating early computational runs of the models. Geological, geotechnical, and seismological information from the work areas mentioned previously is being incorporated into the bridge evaluations. Additional site reviews were conducted this month at both bridges with Caltrans and BATA representatives in attendance. Specific attention was paid to details in these structures that have historically been problematic during large earthquakes

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#### **PROJECT / CONTRACT REPORTS**

## Regional Measure 1 Program

New Benicia-Martinez Bridge Project Summary

- New Benicia-Martinez Bridge Contract
- Other Contracts and Related Project Activities

New Carquinez Bridge Project

Richmond-San Rafael Bridge Deck Overlay Project Interstate 880 / State Route 92 Interchange Reconstruction Other Completed Regional Measure 1 Projects

- San Mateo-Hayward Bridge Widening Project
- Richmond Parkway Project
- Bayfront Expressway Widening Project
- Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Project

#### New Benicia-Martinez Bridge Project Summary

**Project Description:** The new Benicia-Martinez Bridge project constructs a new parallel bridge just east of the existing bridge. The project will include reconstructed interchanges to the north and south of the bridges and a new toll plaza and administration building in Martinez.

**New Benicia-Martinez Bridge Project Cost Summary (\$ Millions)** 

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	Variance
А	В	С	d = b + c	е	f	g = f - d
Capital Outlay Support	157.1	24.8	181.8	171.2	189.1	7.3
Right-of-Way and Others	20.4	(0.1)	20.3	12.3	20.3	-
Capital Outlay						-
New Bridge	672.0	100.9	772.9	739.5	772.9	-
I-680/I-780 Interchange Replacement	76.3	22.5	98.8	92.8	98.8	-
I-680/Marina Vista Interchange Reconstruction	51.5	8.1	59.6	56.1	59.6	-
New Toll Plaza	24.3	2.0	26.3	22.9	26.3	-
Existing Bridge & Interchange Modifications	17.2	10.9	28.1	-	61.0	32.9
Other	20.3	(1.3)	19.0	15.2	19.0	-
Project Reserve	20.8	35.3	56.2		27.0	(29.2)
TOTAL	1,059.9	203.1	1,263.0	1,110.0	1,274.0	11.0

Note: Details may not sum to totals due to rounding effects.

New Benicia-Martinez Bridge Project Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	April 2006	-
New Toll Plaza	June 2006	-	May 2007	May 2007	-
New Benicia-Martinez Bridge	December 2007	-	October 2007	October 2007	-
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	December 2007	-
Open to Traffic	December 2007	-	August 2007	August 2007	-
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

<sup>\*</sup>See page 44 for an explanation of change in schedule forecast.

<sup>\*</sup> The budget and estimate at completion includes approximately \$33 million in non-toll bridge funds (Proposition 192 and SHOPP).

**Project Status:** All major construction projects necessary to open the bridge are currently in construction. Numerous foundation and superstructure issues have significantly delayed the new bridge contract. See the following contract detail pages for more information. Note that the remaining expenditures required on the "Right-of-Way and Others" category represent environmental permitting and mitigation.

**Project Issues:** See Project Status.

**Recent TBPOC Actions:** See the following contract detail pages for more information.

## **Project Photographs**



Benicia Toll Plaza



Benicia Toll Plaza

#### New Benicia-Martinez Bridge Project

#### ▶ New Benicia-Martinez Bridge Contract

Contract Description: The new bridge contract constructs a new cast-in-place segmentally constructed reinforced concrete bridge just east of the existing bridge. The new bridge will carry five lanes of eastbound I-680 traffic towards Benicia.

**New Benicia-Martinez Bridge Cost Summary (\$ Millions)** 

Contract a	BATA Budget (07/2005) b	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007)	Variance g = f - d
New Benicia-Martinez Bridge						
Capital Outlay Support	84.9	7.7	92.6	87.0	89.8	(2.8)
Capital Outlay Construction	672.0	100.9	772.9	739.5	772.9	-
TOTAL	756.9	108.6	865.5	826.5	862.7	(2.8)

Note: Details may not sum to totals due to rounding effects.

**New Benicia-Martinez Bridge Schedule Summary** 

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
New Benicia-Martinez Bridge	December 2007	-	October 2007	October 2007	-

Contract Status: The contract is 97 % complete based on the current revised schedule. All substructure and superstructure work has been completed. The final closure on the job was poured on December 20, 2006. Work on the Span 6 closure delamination repair, covered by CCO # 166, was completed, stressed and grouted by March 24, 2007, while repair work on Span 9 and 11, covered by CCO # 172 were completed on April 2, 2007. For the Segmental Frames 1, 2 and 3, the barrier rail concrete finish, top deck access opening pourbacks, and stressing work are all complete. Deck grinding is substantially complete and the methacrylate sealing work is scheduled to begin by mid June 2007. The light poles were installed on Frame 3, while the installation of the light poles for the other two frames will be completed by the end of this month. Finishing work for the interior and exterior concrete is ongoing on the columns and the superstructures. Installation of the miscellaneous metal access platform at abutment 1 for Frame 4 has started. All deck access openings at Frame 1 have been poured. Grinding work will start the 1st week of this month.

Consistent with BATA's Fastrak strategic plan, plans are progressing for the implementation of open road tolling (ORT) at the toll plaza, which involves the demolition of the toll booths. The booth demolition has been completed. The roadway section between toll booth 9 and toll booth 17 has been removed and replaced. Final AC operation at the toll plaza canopy area ended on March 16, 2007. One hundred percent

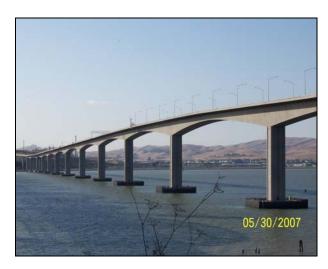
(100%) of the conduits for the new CMS sign have been placed, and the CMS signs have been installed and are currently being tested. Ninety (90) days burn test on the CMS will end on August 22, 2007. Approximately 95% of all the electrical work has already been completed inside the toll plaza building and the roadway electrical work. ORT equipment is expected to be completed in August 2007.

Contract Issues: None

Contract Issues: None.

**Recent TBPOC Actions:** None.

#### **Contract Photographs**

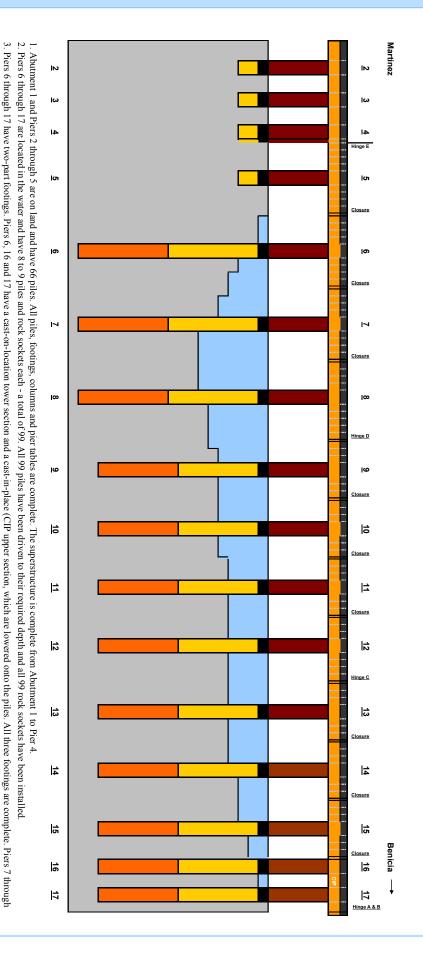


New Benicia Bridge, with Light Poles and Sign Structure



New Benicia Bridge (Looking inside the box girder)

# New Benicia-Martinez Bridge Progress Diagram 1-Jun-07



6. Piers 4 through 15 have 344 cast-in-place cantilevered superstructure segments. All of the three-hundred and forty-four (344) segments (100%) have been cast to-date. All hinges are completed, except for the installation of the joint assemblies. All nine span closures have been poured. Repairs for the delaminated concrete @ soffit slabs at spans 6, 9 and 11 have all been done as of 4/2/07. 4. All Stage 2 footings have been poured and stressed.5. All pier tables are complete as of the end of May 2006. 15 have a precast lower section that is set on the piles and a cast-in-place (CIP) upper section. All nine precast footings have been set and all CIP footings are complete

#### New Benicia-Martinez Bridge Project Summary

#### **▶ OTHER CONTRACTS AND RELATED PROJECT ACTIVITIES**

**Contract Description:** Contracts related to the new Benicia-Martinez Bridge project involve the construction of a new toll plaza south of the new bridge in Contra Costa County with 17 toll booths, including two high-occupancy vehicle (HOV) bypass lanes, and the reconstruction of the I-680/Marina Vista Road and I-680/I-780 interchanges.

Other Contracts and Related Activities Cost Summary (\$ Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	Variance
a	b	С	d = b + c	e	f	g = f - d
Capital Outlay Support	72.2	17.0	89.2	84.2	99.3	10.1
Right-of-Way and Environmental Mitigation	20.4	(0.1)	20.3	12.3	20.3	-
Capital Outlay Construction						-
I-680/I-780 Interchange Replacement	76.3	22.5	98.8	92.8	98.8	-
I-680/Marina Vista Interchange	51.5	8.1	59.6	56.1	59.6	-
New Toll Plaza	24.3	2.0	26.3	22.9	26.3	-
Existing Bridge & Interchange	17.2	10.9	28.1	-	61.0	32.9
Others	20.3	(1.3)	19.0	15.2	19.0	-
Total Capital Outlay Construction	189.6	42.2	231.8	187.0	253.7	21.9
TOTAL	282.2	59.1	341.3	283.5	373.3	32.0

Note: Details may not sum to totals due to rounding effects.

Other Contracts and Related Activities Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	April 2006	-
New Toll Plaza	June 2006	-	May 2007	May 2007	-
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	December 2007	-
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

#### **Contract Status:**

Toll Plaza and Administration Building: The contract is 99% complete based on contractor payment. The Contractor has completed all work on the Operations Building, Toll Plaza and Courtyard. The Plant Establishment Period ended on May 14, 2007. The contract was accepted on May 18, 2007 and the Preliminary Final Estimate (PFE) is expected 30 days thereafter. A number of notices of potential claims that have been filed by the Contractor remain to be resolved, but this will have no impact on the bridge Open-to-Traffic date.

**I-680/I-780 Interchange:** The contract remains approximately 96% complete based on the current revised schedule. To-date, all of the bridge structures are substantially complete. Final electrical work for the new Benicia-Martinez Bridge and the interchange will not be completed until after the new bridge is complete.

I-680/Marina Vista Interchange: The contract is 100% complete as of May 12, 2006, and has been accepted by Caltrans. Caltrans and the contractor have resolved all issues for the final payment for work on the contract and the final estimate was issued to the Contractor on April 23, 2007.

Wetland Mitigation: The contract is 100% complete. The Contract Completion Acceptance (CCA) was submitted to Caltrans Headquarters for their approval on March 3, 2006. The Proposed Final Estimate (PFE) has been reviewed and accepted by the Contractor.

Existing Bridge & Interchange Modification Contract: The PS&E package is currently being reviewed by Caltrans Headquarters in Sacramento. Construction contract advertise date is scheduled for early August 2007 with the expected award date in October 2007. This construction contract will have a duration of 2 years and 3 months and cost of the rehabilitation work will be funded from the project contingency. Caltrans has added state-funded SHOPP work to the contract to rehabilitate portions of the Marina Vista interchange and interstate. The California Transportation Commission will be reviewing and approving these funds to be added to the contract on July 25, 2007.

Recent TBPOC Actions: In June 2007, the TBPOC approved the existing bridge modification contract for advertisement.







Benicia-Martinez Progress Photo

#### New Carquinez Bridge Project

**Project Description:** The new Carquinez Bridge project involves constructing a new suspension bridge west of the existing bridges with four westbound lanes and a bicycle/pedestrian lane and demolishing the existing 1927 bridge.

**New Carquinez Bridge Cost Summary (\$ Millions)** 

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	Varianc e
а	b	С	d = b + c	е	<u> </u>	g = f - d
Capital Outlay Support	124.4	(1.1)	123.3	119.9	122.3	(1.0)
Capital Outlay Construction						-
Replacement Bridge	253.3	4.0	257.3	255.9	257.3	-
South Interchange	73.9	-	73.9	71.9	73.9	-
Existing 1927 Bridge	35.2	-	35.2	26.6	35.2	-
Other	29.3	(0.7)	28.6	25.2	28.6	-
Project Reserve	12.1	(2.2)	9.9	-	0.9	(9.0)
TOTAL	528.2	=	528.2	499.5	518.2	(10.0)

Note: Details may not sum to totals due to rounding effects.

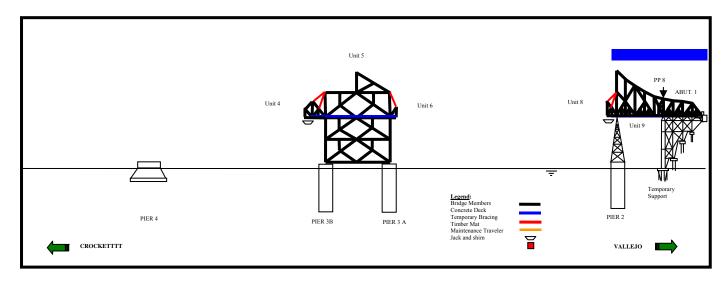
**New Carquinez Bridge Schedule Summary** 

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
New Carquinez Bridge	December 2003*	-	December 2003*	December 2003*	-
1927 Carquinez Bridge Demolition	September 2007	-	December 2007	December 2007	-
Landscaping	August 2011	-	August 2011	August 2011	-

<sup>\*</sup> The date shown is for the opening of the bridge to traffic.

Project Status: The new replacement bridge and all its approaches have been completed and opened to traffic in November 2003. The demolition contract to remove the 1927 bridge, which was awarded in April 2005, is approximately 77% complete based on schedule. However, based on payment, this contract is 85% complete in that the greatest pay items involved the 1958 bridge approach deck replacement, which was completed in November 2005. To-date, removal of Units 1, 2, 3, 6, 7 and 8 of the 1927 bridge (Main Truss) have been completed. Demolition work continues at Units 4 with 2 panel points remaining. Installation of temporary supports under Unit 9 has been completed. The Contractor is anticipating to jack bridge Unit 9 at panel point 8 in mid June. Removal of bridge Unit 5 (Pier 3) is complete. Realignment of the local street and the construction of the new bike path is on-going until September 2007.

# Project Issues: None



Carquinez Bridge demolition status as of May 23, 2007

# **Project Photographs:**



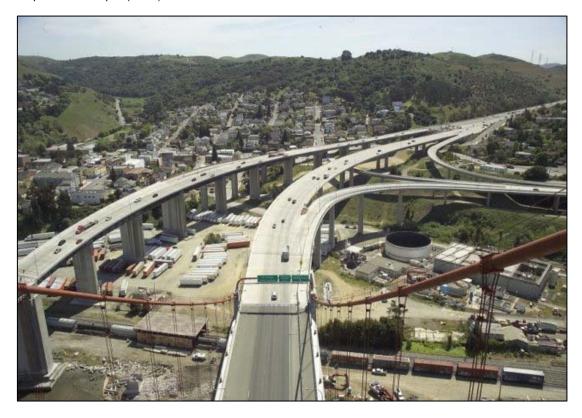
Overview of both bridges



Demolition of old bridge



Carquinez Middle Span (Unit 6)



Aerial View of progress

#### Interstate 880/State Route 92 Interchange Reconstruction Project

**Project Description:** Modify the existing cloverleaf interchange to increase capacity and improve safety and traffic operations.

Interstate 880/State Route 92 Interchange Cost Summary (\$ Millions)

Contract a	BATA Budget (07/2005) B	Approved Changes c	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007)	Variance q = f - d
I-880/SR-92 Interchange Improvement						g . u
Capital Outlay Support	28.8	-	28.8	31.7	55.0	26.2
Capital Outlay Construction	94.8	-	94.8	-	155.0	60.2
Capital Outlay Right-of-Way	9.9	-	9.9	8.3	15.0	5.1
Project Reserve	0.3	-	0.3	-	20.0	19.7
TOTAL	133.8	-	133.8	40.0	245.0	111.2

Note: Details may not sum to totals due to rounding effects. \$9.6 million in ACTA funds included under Capital Outlay Construction. \$3.7 million included in Capital Outlay Construction for separate landscape contract.

Interstate 880/State Route 92 Interchange Schedule Summary

	BATA Project		Project Complete Current		
Project	Completion Baseline (07/2005)	Approved Changes (Months)	Approved Schedule (05/2007)	Contract Complete Schedule Forecast (05/2007)	Schedule Variance (Months)
I-880/SR-92 Interchange Reconstruction	December 2010	-	December 2010	June 2011	6

**Project Status:** On June 27, 2007, Caltrans opened three bids for the contract. The apparent low bid was significantly over the current cost forecast. Caltrans and BATA are currently evaluating the bids. A budget change will be necessary to award the contract. BATA has been requested to take action on the contract in July. The revised budget is shown above as the current cost forecast.

#### **Project Issues:**

Issue	Mitigating Action
Bids have come in higher than forecast.	The BATA Plan of Finance has sufficient funds to cover the higher cost.

## **Project Photographs:**



Interstate 880/State Route 92 Interchange BEFORE



Interstate 880/State Route 92 Interchange AFTER

#### Other Completed Regional Measure 1 (RM1) Projects

Summary Description: Other completed Regional Measure 1 projects are the following: (a) Widen the San Mateo-Hayward Bridge along its low-trestle section and its eastern approach; (b) Widen the Bayfront Expressway (SR 84) from the Dumbarton Bridge to the U.S. 101/Marsh Road interchange; (c) Construct an eastern approach (Richmond Parkway) between the Richmond-San Rafael Bridge and Interstate 80 near Pinole; (d) Modify the U.S. 101/University Avenue interchange; (e) Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation Project; and (f) Richmond-San Rafael Bridge Deck Overlay Project.

Other Completed RM1 Projects Cost Summary (\$ Millions)

Contract A	BATA Budget (07/2005) B	Approved Changes C	Current Approved Budget (05/2007) d = b + c	Cost To Date (05/2007) e	Cost Forecast (05/2007)	Variance g = f - d
San Mateo-Hayward Bridge Widening Project	217.8	-	217.8	208.7	211.9	(5.9)
Bayfront Expressway Widening Project	36.1	-	36.1	33.3	36.0	(0.1)
Richmond Parkway Project	5.9	-	5.9	4.3	5.9	-
U.S. 101/University Interchange	3.8	-	3.8	3.7	3.8	-
RSR Trestle, Fender, and Joint Rehabilitation	102.1	-	102.1	96.3	97.1	(5.0)
RSR Deck Overlay	25.0	-	25.0	19.6	25.0	-
TOTAL	390.7	-	390.7	365.9	379.7	(11.0)

**Schedule Summary** 

Project	Actual Project Completion Date
Richmond Parkway Project	May 2001
San Mateo-Hayward Bridge Widening Project	February 2003
Bayfront Expressway Widening Project	January 2004
U.S. 101/University Interchange	April 2004
Richmond-San Rafael Bridge Trestle, Fender and Deck Joint Rehabilitation	August 2005
RSR Deck Overlay	December 2006

**Project Status:** Construction has been completed on the above listed contracts.

Project Issues: None.

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#### **APPENDICES**

- A Toll Bridge Seismic Retrofit Program: San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail
- B Toll Bridge Seismic Retrofit Program Cost Detail
- C Toll Bridge Seismic Retrofit Program Summary Schedule
- D Regional Measure 1 Program Cost Detail
- **E** Regional Measure 1 Program Summary Schedule

\* Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

## Appendix A: Toll Bridge Seismic Retrofit Program (\$ Millions)

#### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project							
East Span - Skyway Capital Outlay Support	01202X	197.0	-	197.0	163.4	197.0	-
Capital Outlay Construction  Total		1,293.0 1,490.0	-	1,293.0 1,490.0	1,158.0 1,321.4	1,293.0 1,490.0	-
East Span - SAS E2/T1 Foundations Capital Outlay Support	0120EX	52.5	(11.0)	41.5	21.7	41.5	-
Capital Outlay Construction  Total		313.5 366.0	- (11.0)	313.5 355.0	224.9 246.6	313.5 355.0	-
East Span - SAS Superstructure Capital Outlay Support	0120FX	214.6	-	214.6	38.6	214.6	_
Capital Outlay Construction		1,753.7	-	1,753.7	270.1	1,767.4	13.7
Total		1,968.3	-	1,968.3	308.7	1,982.0	13.7
SAS W2 Foundations Capital Outlay Support Capital Outlay Construction	0120CX	10.0 26.4	-	10.0 26.4	9.2 25.8	10.0 26.4	-
Total		36.4	-	36.4	35.0	36.4	_
YBI South/South Detour Capital Outlay Support	0120RX	29.5	10.0	39.5	23.3	39.5	_
Capital Outlay Construction  Total		131.9 161.4	202.5 212.5	334.4 373.9	57.7 81.0	334.4 373.9	-
YBI Transition Structures Capital Outlay Support Capital Outlay Construction	0120PX	78.7 299.3	- (23.2)	78.7 276.1	14.0	78.7 276.1	- -
Total		378.0	(23.2)		14.0	354.8	-
Oakland Touchdown (see notes below)	01204X						
Capital Outlay Support Capital Outlay Construction	012047	74.4 283.8	-	74.4 283.8	24.5	92.1 302.5	17.7 18.7
Total		358.2	-	358.2	24.5	394.6	36.4
* OTD Submarine Cable Capital Outlay Support	0120K4				0.5	<b>*</b> 3.0	
Capital Outlay Construction  Total					- 0.5	9.6 12.6	
* OTD No. 1 (Westbound) Capital Outlay Support	0120L4				3.8	49.9	
Capital Outlay Construction  Total					3.8	226.5 276.4	
* OTD No. 2 (Eastbound)	0120M4						
Capital Outlay Support					0.2	15.8	
Capital Outlay Construction  Total					0.2	62.0 77.8	
* OTD Electrical Systems	0120N4						
Capital Outlay Support					0.1	1.4	
Capital Outlay Construction  Total					0.1	4.4 5.8	
TOTAL					0.1	5.8	

Notes: Oakland Touchdown Cost-to-Date and Cost Forecast includes prior-to-split Capital Outlay Support Costs.

<sup>\*</sup>Current contract allotment to install two submarine electrical cables is

<sup>\$11.5</sup> million. Additional non-program funding to support this allocation beyond the \$9.6 million of available programs funds has been made available by the Treasure Island Development Authority

# Appendix A: Toll Bridge Seismic Retrofit Program (\$ Millions)

## San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail (Cont'd.)

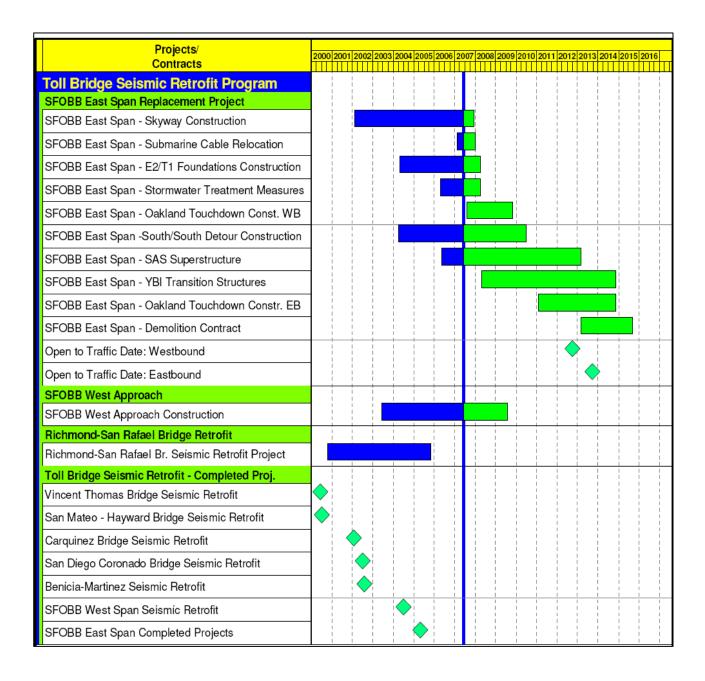
Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	At-Completion Variance
а	b	С	d	e = c + d	f	g	h = g - e
Existing Bridge Demolition Capital Outlay Support Capital Outlay Construction Total	01209X	79.7 239.2 318.9		79.7 239.2 318.9	0.3 - 0.3	79.7 222.0 301.7	- (17.2) (17.2)
YBI/SAS Archeology Capital Outlay Support Capital Outlay Construction Total	01207X	1.1 1.1 2.2	- - -	1.1 1.1 2.2	1.1 1.1 2.2	1.1 1.1 2.2	- - -
YBI - USCG Road Relocation Capital Outlay Support Capital Outlay Construction Total	0120QX	3.0 3.0 6.0	- - -	3.0 3.0 6.0	2.7 2.8 5.5	3.0 3.0 6.0	- - -
YBI - Substation and Viaduct Capital Outlay Support Capital Outlay Construction Total	0120GX	6.5 11.6 18.1	- - -	6.5 11.6 18.1	6.4 11.3 17.7	6.5 11.6 18.1	- - -
Oakland Geofill Capital Outlay Support Capital Outlay Construction Total	01205X	2.5 8.2 10.7		2.5 8.2 10.7	2.5 8.2 10.7	2.5 8.2 10.7	- - - -
Pile Installation Demonstration Project Capital Outlay Support Capital Outlay Construction Total	01208X	1.8 9.2 11.0	- - -	1.8 9.2 11.0	1.8 9.3 11.1	1.8 9.2 11.0	- - -
Stormwater Treatment Measures Capital Outlay Support Capital Outlay Construction Total	0120JX	6.0 15.0 21.0	2.0 - 2.0	8.0 15.0 23.0	6.8 10.6 17.4	8.0 18.3 26.3	- 3.3 3.3
Right-of-Way and Environmental Mitigation Capital Outlay Support Capital Outlay & Right-of-Way Total	0120X9	- 72.4 72.4	- - -	- 72.4 72.4	38.8 38.8	- 72.4 72.4	- -
Sunk Cost - Existing East Span Retrofit Capital Outlay Support Capital Outlay Construction Total	04343X & 0	39.5 30.8 70.3	- - -	39.5 30.8 70.3	39.5 30.8 70.3	39.5 30.8 70.3	- - -
Other Capital Outlay Support Environmental Phase Pre-Split Project Expenditures Non-project Specific Costs Total		97.7 44.9 20.0 162.6	- (1.0) (1.0)	97.7 44.9 19.0	97.7 44.9 3.2 145.8	97.7 44.9 19.0 161.6	- - - -
Subtotal Capital Outlay Support		959.4	-	959.4	501.6	977.1	17.7
Subtotal Capital Outlay Construction Other Budgeted Capital		4,492.1 35.1	179.2 -	4,671.3 35.1	1,849.4 0.6	4,689.9 7.7	18.5 (27.4)
Total SFOBB East Span Replacement Project		5,486.6	179.2	5,665.8	2,351.6	5,674.7	8.9

## Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail (\$ Millions)

**Toll Bridge Seismic Retrofit Program Appendix** 

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	At-Completion Variance
a	С	ď	e = c + d	f	g	h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.4	-	959.4	501.6	977.1	17.7
Capital Outlay Construction	4,492.1	179.2	4,671.3	1,849.4	4,689.9	18.6
Other Budgeted Capital	35.1	-	35.1	0.6	7.7	(27.4)
Total	5,486.6	179.2	5,665.8	2,351.6	5,674.7	` 8.9 <sup>´</sup>
SFOBB West Approach Replacement			•	·	·	
Capital Outlay Support	120.0	-	120.0	93.5	120.0	-
Capital Outlay Construction	309.0	-	309.0	241.4	309.0	-
Total	429.0	-	429.0	334.9	429.0	-
SFOBB West Span Retrofit						-
Capital Outlay Support	75.0	-	75.0	74.8	75.0	-
Capital Outlay Construction	232.9	-	232.9	226.3	232.9	-
Total	307.9	-	307.9	301.1	307.9	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.3	127.0	-
Capital Outlay Construction	780.0	(82.0)	698.0	666.0	698.0	-
Total	914.0	(89.0)	825.0	792.3	825.0	-
Benicia-Martinez Bridge Retrofit		, ,				-
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.4	85.5	=
Total	114.2	-	114.2	114.2	114.2	=
San Mateo-Hayward Bridge Retrofit						-
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	=
Total	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	_	16.4	16.4	16.4	_
Capital Outlay Construction	42.1	_	42.1	42.0	42.1	_
Total	58.5	_	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit	30.3	_	30.3	36.4	36.3	-
Capital Outlay Support	33.5	_	33.5	33.2	33.5	_
Capital Outlay Support  Capital Outlay Construction	70.0	_	70.0	69.4	70.0	-
Total	103.5	_	103.5	102.6	103.5	-
		(7.0)				-
Subtotal Capital Outlay Support	1,433.2	(7.0)	1,426.2	940.8	1,443.9	17.7
Subtotal Capital Outlay	6,286.7	97.2	6,383.9	3,454.9	6,402.5	18.6
Subtotal Other Budgeted Capital	35.1	=	35.1	0.6	7.7	(27.4)
Miscellaneous Program Costs	30.0	<u>-</u>	30.0	24.7	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	90.2	7,875.2	4,421.0	7,884.1	8.9
Program Contingency	900.0	(90.2)	809.8	-	800.9	(8.9)
Total Toll Bridge Seismic Retrofit Program	8,685.0	-	8,685.0	4,421.0	8,685.0	-

## Appendix C: Toll Bridge Seismic Retrofit Program Summary Schedule



# Appendix D: Regional Measure 1 Program Cost Detail (\$ Millions)

				Current Approved			
Project	EA Number	BATA Budget (07/2005)	Approved Changes	Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	At-Completion Variance
a	b	С	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project							
New Bridge	00603						
Capital Outlay Support	*****-	84.9	7.7	92.6	87.0	89.8	(2.8)
Capital Outlay Construction		01.0	• • • •	-	07.0	00.0	(2.0)
		661.0	100.0	762.0	729.4	762.0	
BATA Funding		661.9	100.9	762.8		762.8	-
Non-BATA Funding		10.1	-	10.1	10.1	10.1	-
Subtotal		672.0	100.9	772.9	739.5	772.9	-
Total		756.9	108.6	865.5	826.5	862.7	(2.8)
I-680/I-780 Interchange Reconstruction	00606_						
Capital Outlay Support	_						
BATA Funding		24.9	4.0	28.9	28.7	30.1	1.2
Non-BATA Funding		1.4	5.1	6.5	6.3	6.6	0.1
Subtotal		26.3	9.1	35.4	35.0	36.7	1.3
		20.5	9.1	33.4	33.0	30.7	1.5
Capital Outlay Construction				<b></b> 0	74.4	77.0	
BATA Funding		54.7	22.5	77.2	71.1	77.2	-
Non-BATA Funding		21.6	-	21.6	21.7	21.6	-
Subtotal		76.3	22.5	98.8	92.8	98.8	-
Total		102.6	31.6	134.2	127.8	135.5	1.3
I-680/Marina Vista Interchange Reconstruction	00605_						
Capital Outlay Support		18.3	1.2	19.5	19.8	20.0	0.5
Capital Outlay Construction		51.5	8.1	59.6	56.1	59.6	-
Total		69.8	9.3	79.1	75.9	79.6	0.5
New Toll Plaza and Administration Building	00604_	44.0	0.0	45.0	45.0	45.7	0.5
Capital Outlay Support		11.9	3.3	15.2	15.2	15.7	0.5
Capital Outlay Construction		24.3	2.0	26.3	22.9	26.3	-
Total		36.2	5.3	41.5	38.1	42.0	0.5
Existing Bridge & Interchange Modifications	0060A						
Capital Outlay Support		4.3	5.7	10.0	7.9	18.6	8.6
Capital Outlay Construction			0				0.0
BATA Funding		17.2	10.9	28.1	_	50.0	21.9
•		17.2	-	20.1	-	11.0	11.0
Non-BATA Funding		47.0					
Subtotal		17.2	10.9	28.1		61.0	32.9
Total		21.5	16.6	38.1	7.9	79.6	41.5
Other Contracts	See note below						
Capital Outlay Support		11.4	(2.3)	9.1	6.3	8.3	(8.0)
Capital Outlay Construction		20.3	(1.3)	19.0	15.2	19.0	-
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.3	20.3	_
Total		52.1	(3.7)	48.4	33.8	47.6	(0.8)
Total		52.1	(3.7)	40.4	33.0	47.0	(0.6)
Subtotal BATA Capital Outlay Support		155.7	19.7	175.3	164.9	182.5	7.2
Subtotal BATA Capital Outlay Construction		829.9	143.1	973.0	894.7	994.9	21.9
Subtotal Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.3	20.3	-
Subtotal Non-BATA Capital Outlay Support		1.4	5.1	6.5	6.3	6.6	0.1
Subtotal Non-BATA Capital Outlay Construction		31.7	-	31.7	31.8	42.7	11.0
Project Reserves		20.8	35.3	56.2	-	27.0	(29.0)
i ioject neselves		20.0	55.5	50.2	-	21.0	(23.0)
Total New Benicia-Martinez Bridge Project		1,059.9	203.1	1,263.0	1,110.0	1,274.0	11.0

Notes:

Includes EA's 00601\_, 00608\_, 00609\_, 0060A\_, 0060C\_, 0060E\_, 0060F\_, 0060G\_, and 0060H\_ and all Project Right-of-Way

# Appendix D: Regional Measure 1 Program Cost Detail (\$ Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (05/2007)	Cost To Date (05/2007)	Cost Forecast (05/2007)	At-Completion Variance
a	b	С	d	e = c + d	f	g	h = g - e
Carquinez Bridge Replacement Project							
New Bridge	01301_						
Capital Outlay Support		60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction		253.3	4.0	257.3	255.9	257.3	-
Total		313.8	3.7	317.5	316.1	317.5	-
Crockett Interchange Reconstruction	01305_						
Capital Outlay Support		32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction		73.9	-	73.9	71.9	73.9	-
Total		105.9	(0.1)	105.8	103.8	105.8	-
Existing 1927 Bridge Demolition	01309_						
Capital Outlay Support	_	16.1	-	16.1	12.6	14.2	(1.9)
Capital Outlay Construction		35.2	-	35.2	26.6	35.2	
Total		51.3	-	51.3	39.2	49.4	(1.9)
Other Contracts	See note belov	N					
Capital Outlay Support		15.8	(0.7)	15.1	15.2	16.0	0.9
Capital Outlay Construction		18.8	(0.7)	18.1	15.3	18.1	-
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
Total		45.1	(1.4)	43.7	40.4	44.6	0.9
Subtotal BATA Capital Outlay Support		124.4	(1.1)	123.3	119.9	122.3	(1.0)
			. ,				, ,
Subtotal BATA Capital Outlay Construction		381.2 10.5	3.3	384.5	369.7	384.5	-
Subtotal Capital Outlay Right-of-Way		10.5	- (2.2)	10.5 9.9	9.9	10.5 0.9	(0.0)
Project Reserves		12.1	(2.2)	9.9	-	0.9	(9.0)
Total Carquinez Bridge Replacement	t Project	528.2	-	528.2	499.5	518.2	(10.0)

Notes:

Other Contracts includes EA's 01302\_, 01303\_, 01304\_, 01306\_, 01307\_, 01308\_, 0130A\_, 0130C\_, 0130D\_, 0130F\_, 0130G\_, 0130H\_, 0130J\_, 00453\_, 00493\_, 04700\_, 00607\_, 2A270\_, and 29920\_ and all Project Right-of-Way

## Appendix D: Regional Measure 1 Program Cost Detail (\$ Millions) (Cont'd.)

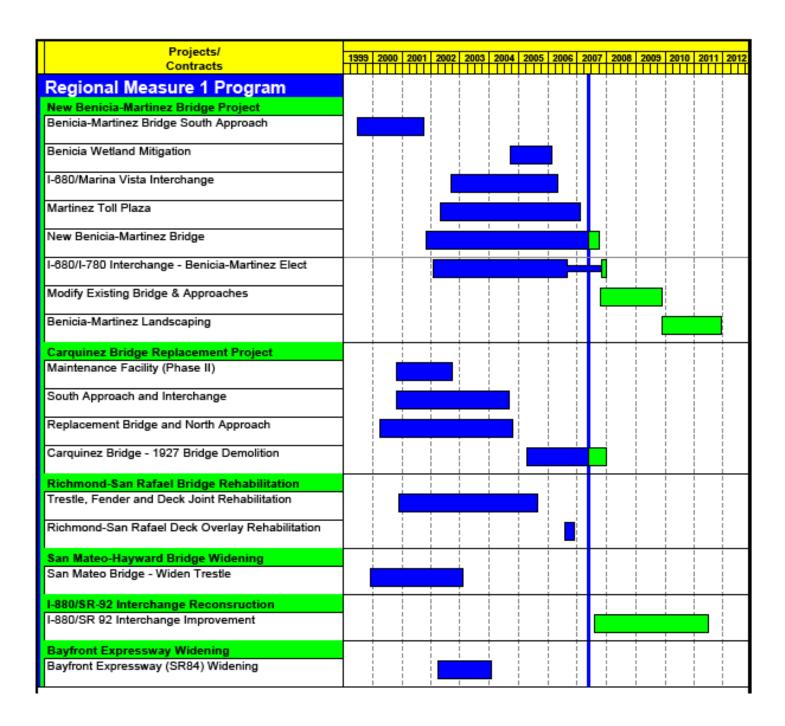
Richmond-San Rafael Bridge Trestle, Fender, and						
Deck Joint Rehabilitation	See note <sup>1</sup> below					
Capital Outlay Support BATA Funding	2.2	_	2.2	1.4	2.3	0.1
Non-BATA Funding	8.6	-	8.6	10.4	10.4	1.8
Subtotal	10.8	-	10.8	11.8	12.7	1.9
Capital Outlay Construction						
BATA Funding	40.2	-	40.2	33.4	33.4	(6.8)
Non-BATA Funding Subtotal	51.1 91.3	-	51.1 91.3	51.1 84.5	51.0 84.4	(0.1) (6.9)
Project Reserves	91.3	-	91.3	04.5	04.4	(6.9)
Total	102.1	-	102.1	96.3	97.1	(5.0)
Richmond-San Rafael Bridge Deck Overlay						
Rehabilitation	04152_					
Capital Outlay Support						
BATA Funding	4.0	0.5	4.5	3.3	3.6	(0.9)
Non-BATA Funding Subtotal	4.0 8.0	(4.0) (3.5)	- 4.5	3.3	3.6	(0.9)
Capital Outlay Construction	16.9	3.6	20.5	16.3	16.2	(4.3)
Project Reserves	0.1	(0.1)	-	-	5.2	5.2
Total	25.0	`- ′	25.0	19.6	25.0	-
Richmond Parkway Project (RM 1 Share Only)	Non-Caltrans					
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction  Total	5.9 5.9	-	5.9 5.9	4.3 4.3	5.9 5.9	-
	5.5		0.0	4.0	0.5	
San Mateo-Hayward Bridge Widening	See note <sup>2</sup> below					
Capital Outlay Support	See note - below 34.6	(0.2)	34.4	34.1	34.3	(0.1)
Capital Outlay Support  Capital Outlay Construction	180.2	(1.1)	179.1	174.1	176.2	(2.9)
Capital Outlay Right-of-Way	1.5	-	1.5	0.5	0.6	(0.9)
Project Reserves	1.5	1.3	2.8	-	0.8	(2.0)
Total	217.8	-	217.8	208.7	211.9	(5.9)
I-880/SR-92 Interchange Reconstruction	EA's 23317_, 01601_, and 01	602				
Capital Outlay Support	28.8		28.8	31.7	55.0	26.2
Capital Outlay Construction						
BATA Funding Non-BATA Funding	85.2 9.6	-	85.2 9.6	-	145.4 9.6	60.2
Subtotal	94.8	-	94.8	-	155.0	60.2
Capital Outlay Right-of-Way	9.9	-	9.9	8.3	15.0	5.1
Project Reserves	0.3	-	0.3	-	20.0	19.7
Total	133.8	-	133.8	40.0	245.0	111.2
Bayfront Expressway Widening	EA's 00487_, 01511_, and 01	512_				
Capital Outlay Support	8.6	(0.3)	8.3	8.2	8.2	(0.1)
Capital Outlay Construction	26.5	-	26.5 0.2	24.9	26.5	-
Capital Outlay Right-of-Way Project Reserves	0.2 0.8	0.3	0.2 1.1	0.2	0.2 1.1	-
Total	36.1	-	36.1	33.3	36.0	(0.1)
US 101/University Avenue Interchange Modification	Non-Caltrans					
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	3.8	-	3.8	3.7	3.8	-
Total	3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support	358.3	18.6	376.8	363.5	408.2	31.4
Subtotal BATA Capital Outlay Construction	1,569.8	148.9	1,718.7	1,521.1	1,786.8	68.1
Subtotal Capital Outlay Right-of-Way Subtotal Non-BATA Capital Outlay Support	42.5 14.0	(0.1) 1.1	42.4 15.1	31.2 16.7	46.6 17.0	4.2 1.9
Subtotal Non-BATA Capital Outlay Support Subtotal Non-BATA Capital Outlay Construction	92.4	-	92.4	82.9	103.3	10.9
Project Reserves	35.6	34.6	70.3	-	55.0	(15.3)
Total RM1 Program	2,112.6	203.1	2,315.7	2,015.4	2,416.9	101.2

Notes:

<sup>&</sup>lt;sup>1</sup> Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U\_ and 04157\_

<sup>&</sup>lt;sup>2</sup> San Mateo-Hayward Bridge Widening Includes EA's 00305\_, 04501\_, 04502\_, 04503\_, 04504\_, 04505\_, 04506\_, 04507\_, 04508\_, 04509\_, 27740\_, 27790\_, 04860\_

#### Appendix E: Regional Measure 1 Program Summary Schedule



#### Appendix F: Glossary of Terms

**AB144/SB 66 BUDGET:** The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

**BATA BUDGET:** The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

**APPROVED CHANGES:** For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

**CURRENT APPROVED BUDGET:** The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

**COST TO DATE**: The actual expenditures incurred by the program, project or contract as of the month and year shown.

**COST FORECAST:** The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

**AT COMPLETION VARIANCE or VARIANCE (cost):** The mathematical difference between the Cost Forecast and the Current Approved Budget.

**AB 144/SB 66 PROJECT COMPLETE BASELINE:** The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

**BATA PROJECT COMPLETE BASELINE:** The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

**PROJECT COMPLETE CURRENT APPROVED SCHEDULE**: The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

**PROJECT COMPLETE SCHEDULE FORECAST:** The current projected date for the completion of the program, project, or contract.

**SCHEDULE VARIANCE or VARIANCE (schedule):** The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

The following information is provided in accordance with California Government code Section 7550:

This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production, is \$1,574,873.

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